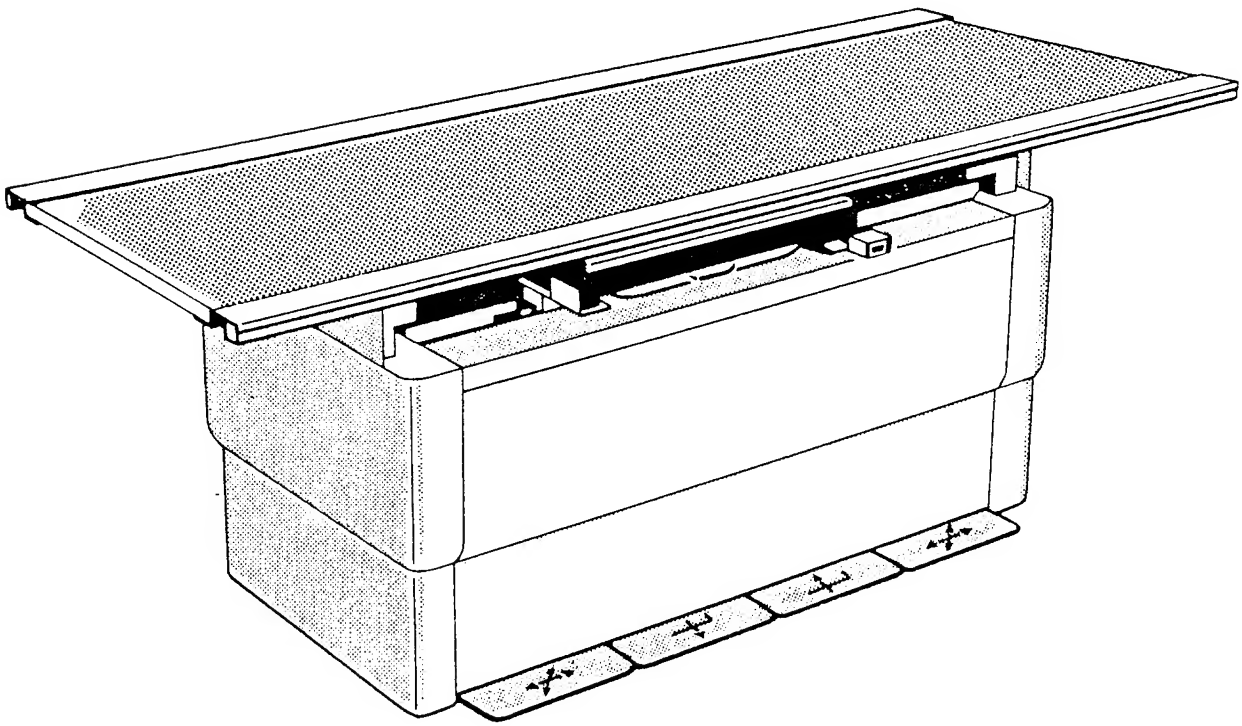
Mounting instructions

ET 2000



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1. TECHNICAL DATA

1.1 General Safety Procedures

In the Federal Republic of Germany, the electrical installation of rooms used for medical purposes must conform to the provisions of VDE Standard 0107. In all other conntries the respective national standards have to be obeyed. Consult installation layout plan.
During installation it is important that all protective ground wire connections provided by the manufacturer are properly made before the equipment is started up.
The protective ground wires between the individual system components and the power supply are connected as shown in the wiring diagram.
Regulations of professional associations concerning safety and accident prevention must be observed. No work may be performed on parts carrying a voltage higher than 42 V (Peak Voltage).
If it is necessary to turn on the power for execution of movements of the equipment in the course of the installation procedure, it must be shut down immediately after completion of these movements.

1.2 Weights of Components

Table	215 kg
Table Top	35 kg

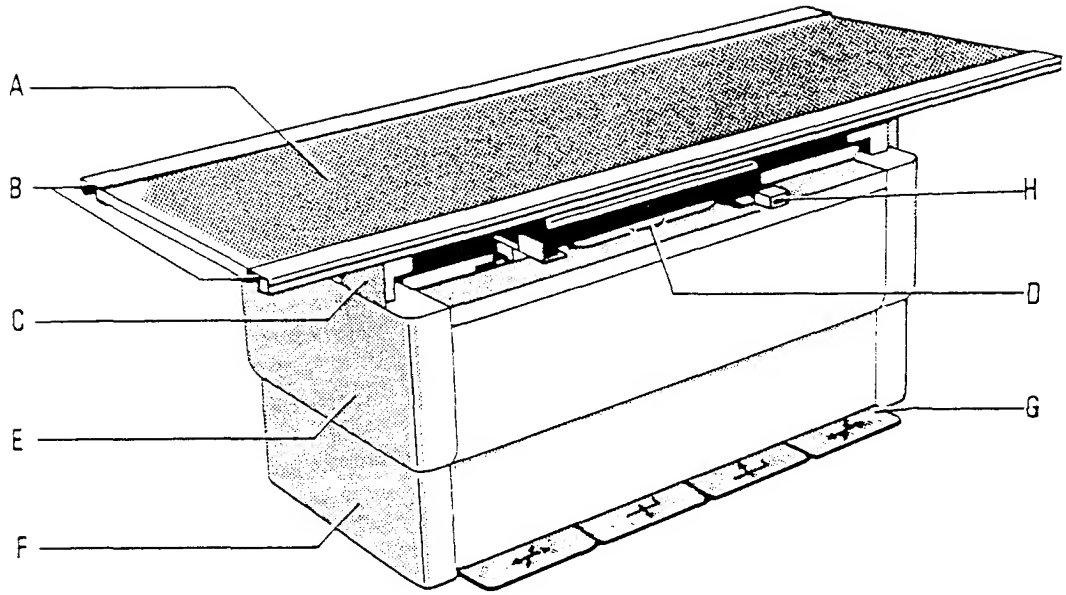
1.3 Measures of Components (mm)

Table	1400 x 800 x 525
Table Top	2220 x 810 x 40

1.4 Measures and Weights incl. Packing Material

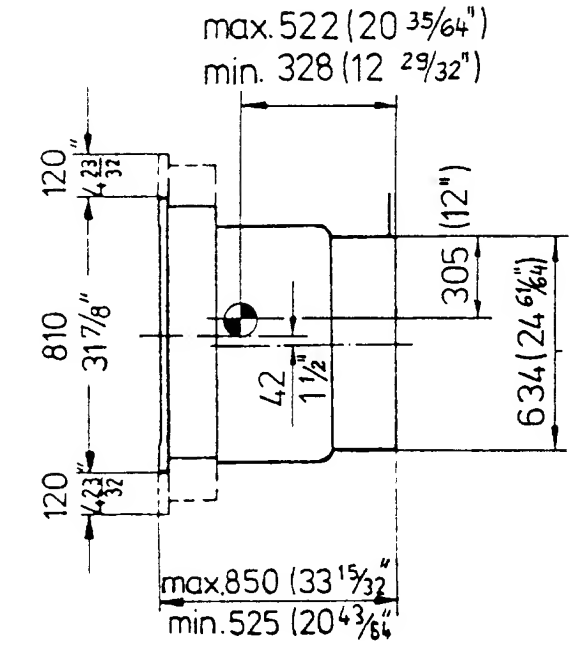
Table	1530 x 860 x 730	ca. 236 kg
Table Top	2320 x 930 x 200	ca. 56 kg

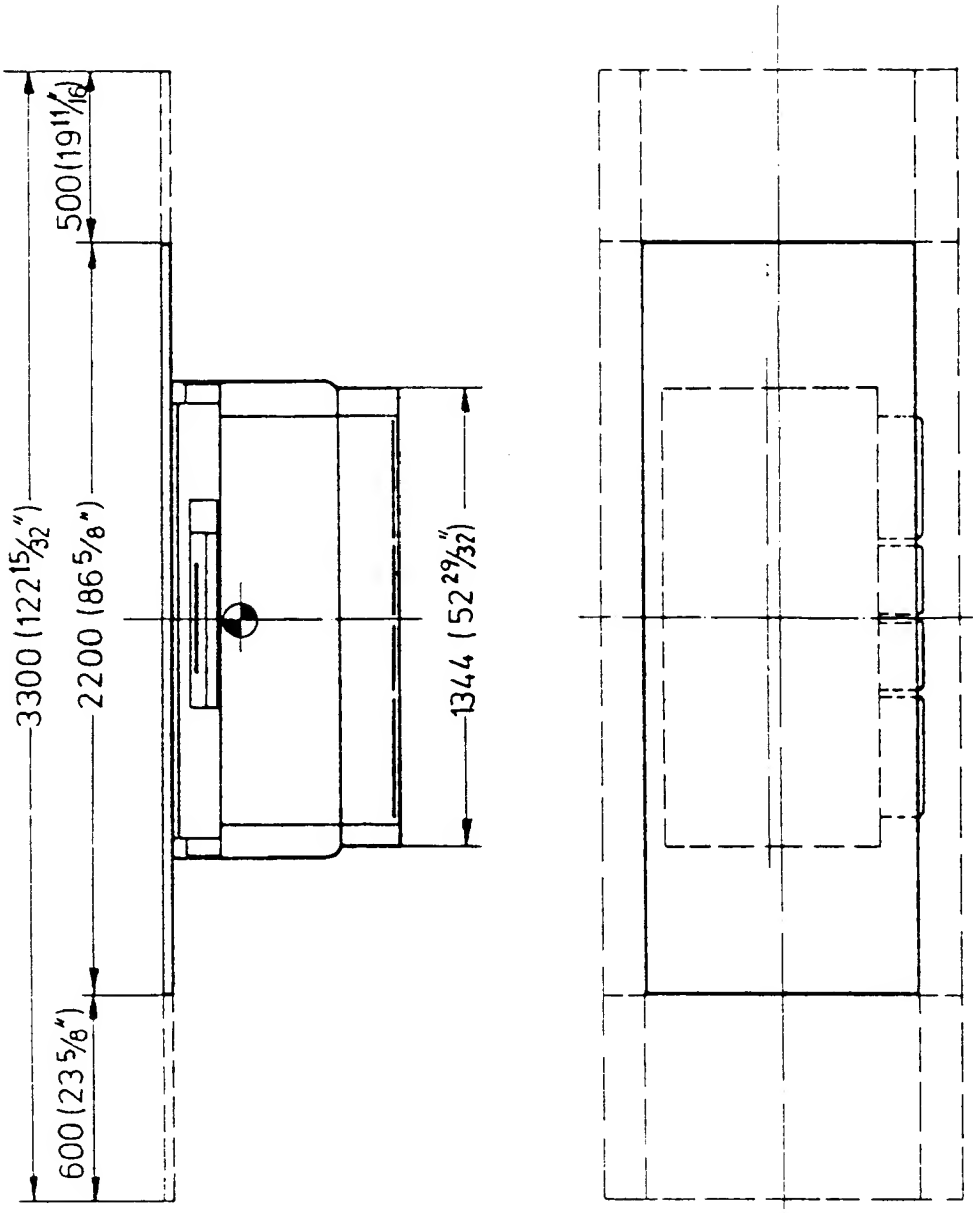
1.5 Component Designations



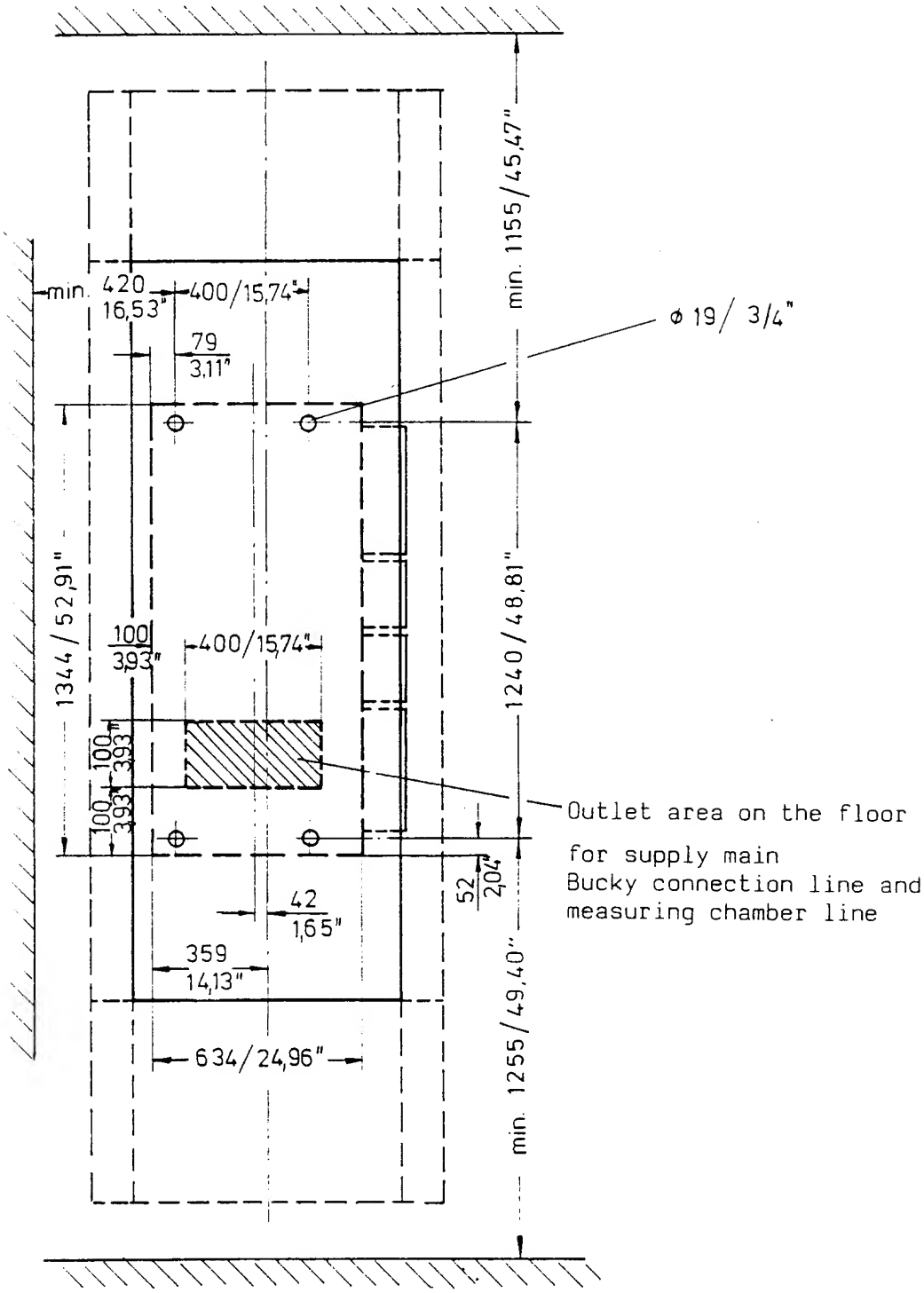
A Table Top
B Profile Rails
C Table Frame
D Bucky Unit
E Telescopic Section of Table
F Table Base
G Switch Pedals
H Safety Interlock Switch

1.6 Dimensional Drawing





1.6.1 Dimensional Drawing Floor



1.7 Mains Connection Data

Mains Connection Cable :	3 x 2.5 mm2 (1L/N/PE)
Power Supply Voltage :	230 V (117/208 V)
Frequency :	50/60 Hz
Nominal Current (Fuse) :	5 A (slow-blow)(10/6,25 A)
Mains Connection Capacity :	0.75 kVA

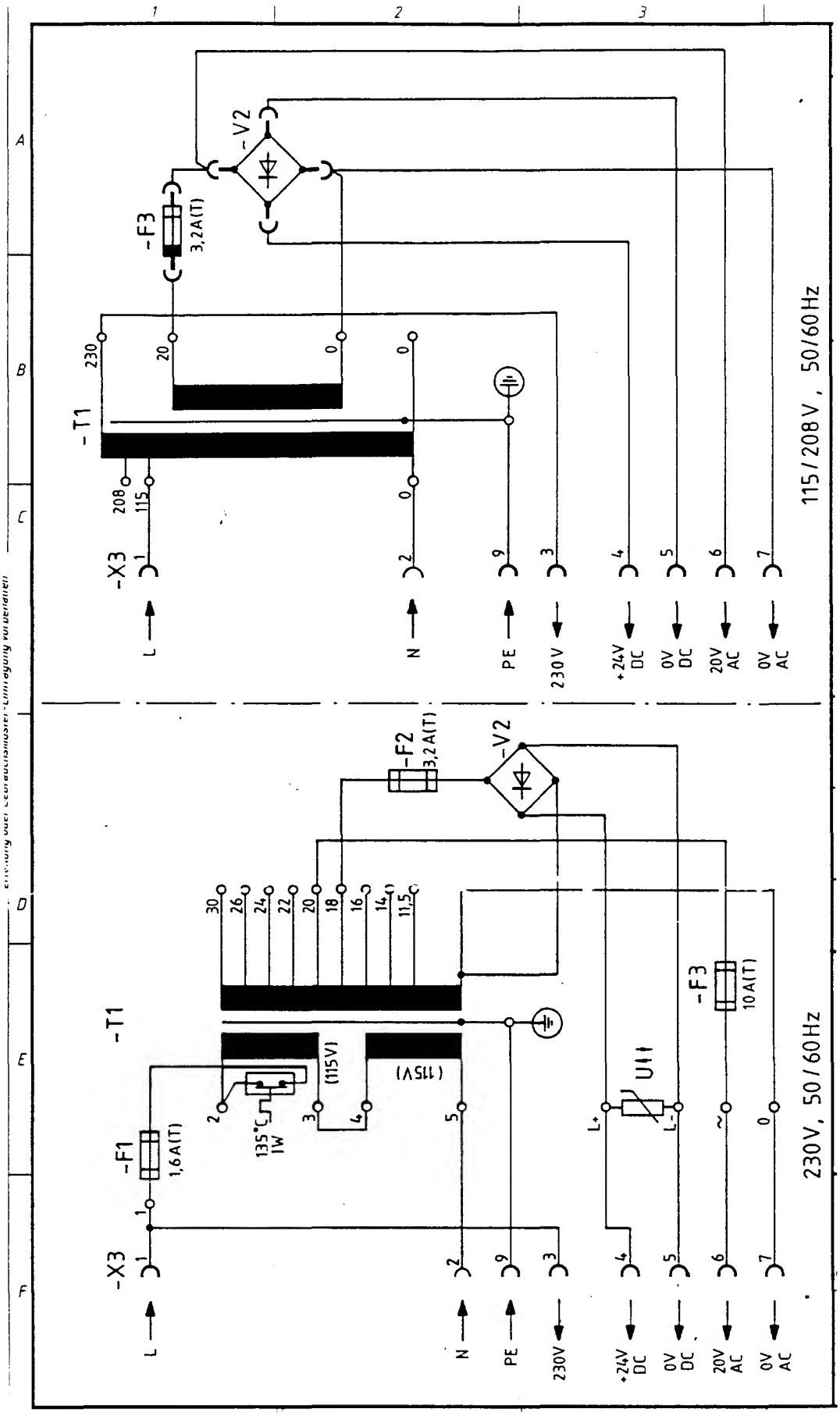
1.8 Special Tools Required

Torque Wrench 50 Nm (5 mkp)
Masonry Drill, 12 mm diameter

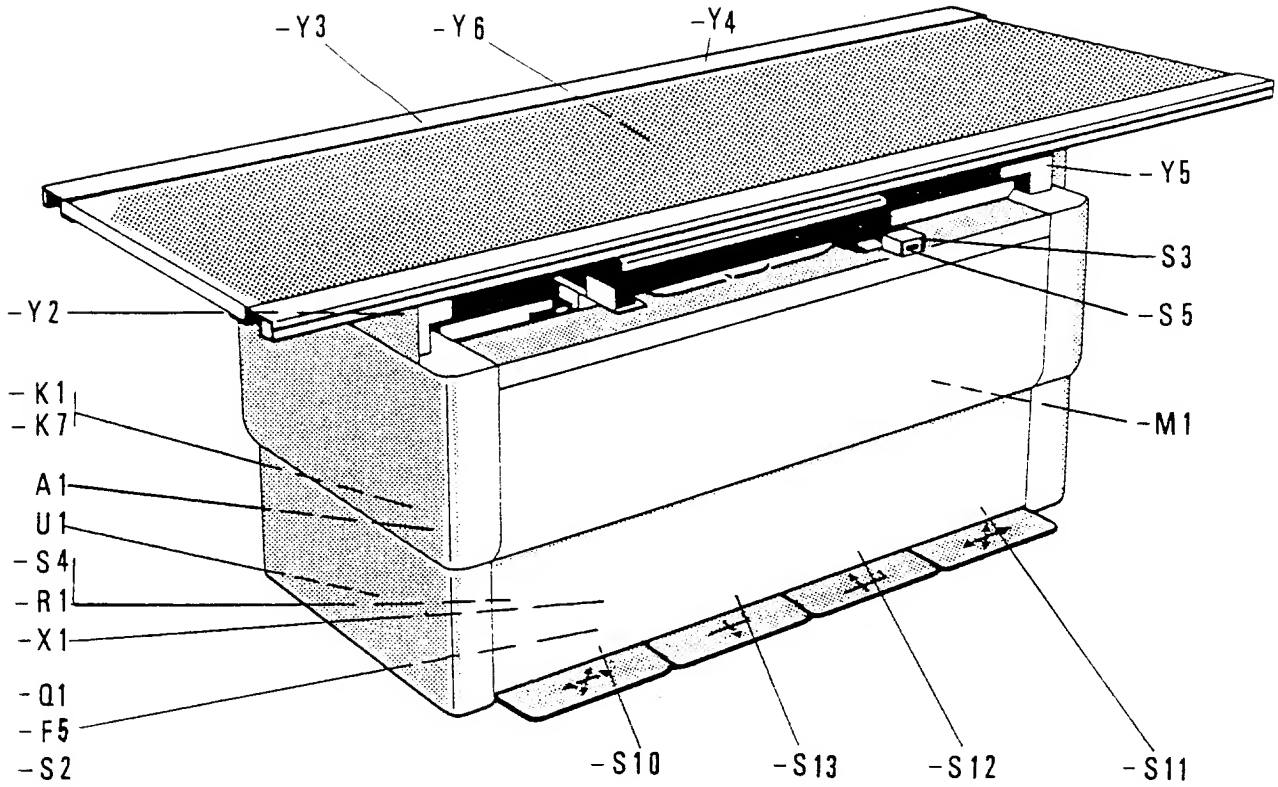
1.9 Measuring Instruments Required

Machinist's Water Level
Measuring Tape
Voltmeter

1.10 Transformer Diagram 115/208/230 V



1.13 Component designation for electrical diagramm



1.14 Part Description for Circuit Diagram

No.	Description
=AF+A1	Control Board
+U1	Frequency Converter
-F1	Fuse transformer primary
-F2	Fuse 24 V
-F3	Fuse 20 V AC, 20 V AC
-F4	Fuse 130 V
-F5	Fuse mains input
-F6	Fuse +12 V DC
-F7	Fuse -12 V DC
-K1	Motor conductor
-K2	Relay motor conductor
-K4	Relay n>0
-K5	Relay safety switch
-K6	Relay indermediate
-K7	Relay exposure height
-Q1	Service switch
-R1	Heigth potentiometer
-S2	Service push
-S3	Switch for brake of Bucky carriage
-S4	Safety limit switch
-S5	Safety push bottom
-S10	Pedal for table top brake
-S11	Pedal for Table top brake
-S12	Pedal for verticalal upwards
-S13	Pedal for vertcal downwards
-T1	Mainstransformer
-T2	Transformer for electronics
-X1	Terminal strip
-X2	Plug in connection to motor
-X3	Plug in connection to transformer
-X4	Plug in connection to motordrive
-X4a	Plug in connection to anti collision drive
-X4b	Plug in connection to anti collision drive
-X5	Plug in connection to pedal strip
-X7	Plug in connection to left transverse brake
-X8	Plug in connection to right transverse brake
-X9	Plug in connection on Bucky carriage
-X10	Plug in connection mains input
-X11	Plug in connection to height measuring unit
-X12	Plug in connection to control signal
-X13	Plug in connection to U1 control signal
-X14	Plug in connection to U1 motor voltage
-X15	Plug in connection for Combi-Elevator
-X16	Test socket

No.	Description
-Y2	Brake table top transverse left
-Y3	Brake table top longtidinal
-Y4	Brake table top longtidinal
-Y5	Brake table top transversial right
-R2	Trimmer disconnection vertikal
-R3	Trimmer intermediate stop
-R4	Trimmer exposure position stop
-R5	Trimmer exposure position hysterese
-R6	Trimmer disconnetion at the bottom
-R7	Trimmer slow motion range
-R8	Trimmer slow motion time
-S17	Jamper safety relay
-V1	LED motor relay
-V3	LED -12 V DC
-V4	LED +12 V DC
-V5	LED +24 V DC
-V6	LED safety switch
-V7	LED pedal vertical up
-V8	LED pedal vertical down
-V9	LED limit switch vertical up
-V10	LED limit switch vertical down
-V12	LED discnection vertical at the top
-V13	LED intermediate stop
-V14	LED exposure height
-V16	LED disconection vertical upwards
-V17	LED slow motion range
-V18	LED slow motion time
-V20	LED frequency converter vertical upwards
-V21	LED frequency converter vertical downwards
-V22	LED frequency converter slow motion
-V23	LED frequency converter n>o
-X16:1	Measuring point ground
-X16:2	Measuring point +12 V DC
-X16:3	Measuring point -12 V DC
-X16:4	Measuring point 0 V DC
-X16:5	Measuring point +24 V DC
-X16:6	Measuring point actual value height measuring-R1
-X16:7	Measuring point nominal value disconnection top
-X16:8	Measuring point nominal value intermediate stop
-X16:9	Measuring point nominal value exposure pos.stop
-X16:10	Measuring point nominal value exposure pos.hyst.
-X16:11	Measuring point nominal value disconnection bot.
-X16:12	Measuring point nominal value slow motion range
-X16:13	Measuring point time impulse exposure
-X16:14	Measuring point memory signal exposure position
-X16:15	Measuring point time impulse exposure position
-X16:16	Measuring point Pedal vertical up- or downwards

2. INSTALLATION

2.1 Preparing the Floor

Drill holes for the floor mounting of the equipment as shown in dimensional drawing, page 5, with a 12 mm/.472 in. drill. To ensure full range movability of the system components, keep the minimum distances indicated.
The bolts must be suitable for 2400 N tensile stress at each mounting point. E.G. Liebig security anchors S12/65 N for DIN 1045 concrete floor.
Remove the vinyl or carpet floor covering around the mounting points for the base of the unit. Lay floor covering shims (installation material, included with the shipment) of the same thickness as the original floor covering at the mounting points.

2.2 Uncrating and Preparing the Table

Remove packing material (Fig. 1).Establish a provisional power supply with the assembly connecting cable (Fig. 6) und lift the table to maximum height. Take off plastic covers (Fig.1, Pos. 1). Loosen the Allan screws underneath with a 4 mm Allan wrench. Swivel the top cover (Pos. 2) forward and lift off by pulling upward.
Remove both Allan screws (Pos. 3) and connecting bar. Loosen Allan screw (Pos. 4). Swivel the cover (Pos. 5) at the bottom forward and pull out downward.

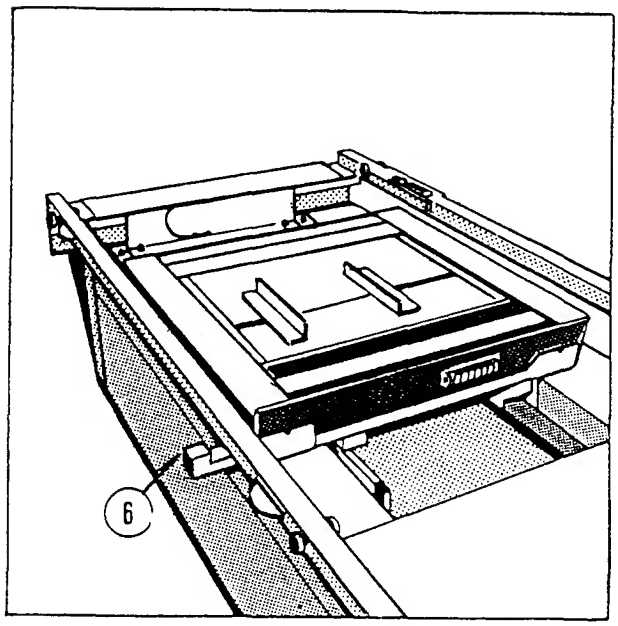


Fig. 1

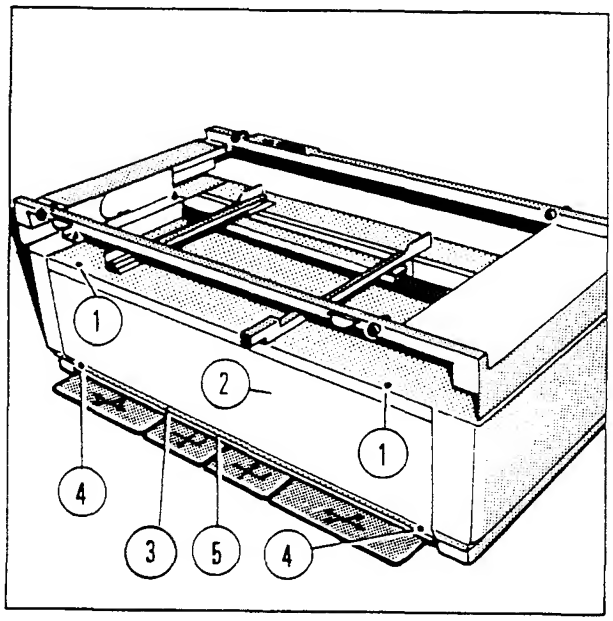


Fig. 2

2.3 Table Installation and Leveling

Remove the set screws of the transport pallet. Lift unit off pallet and position the table over the prepared floor. Prepare heavy-duty anchors as illustrated (Fig.3). Pass anchor sleeves and bolts through table base mounting holes.

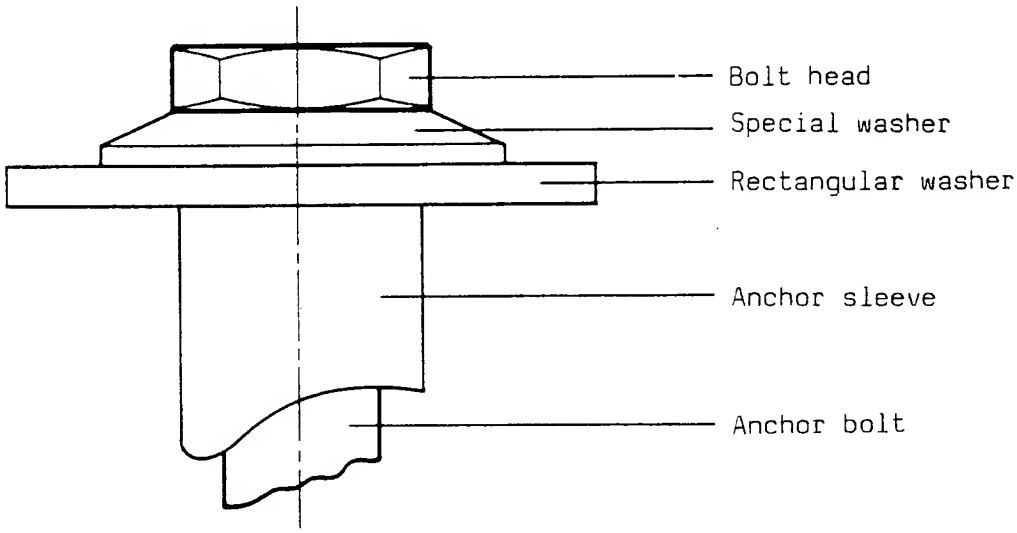


Fig. 3

Check table base with water level (Fig.4+6a, Pos. 12) and compensate with shims, if necessary (Pos. 12, included with the shipment). Tighten mounting bolts.
CAUTION:
Be careful not to distort the table base in any direction.

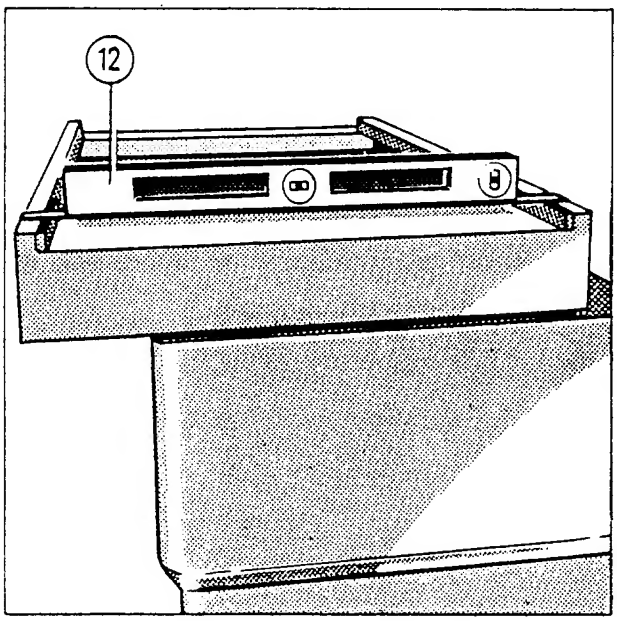


Fig. 4

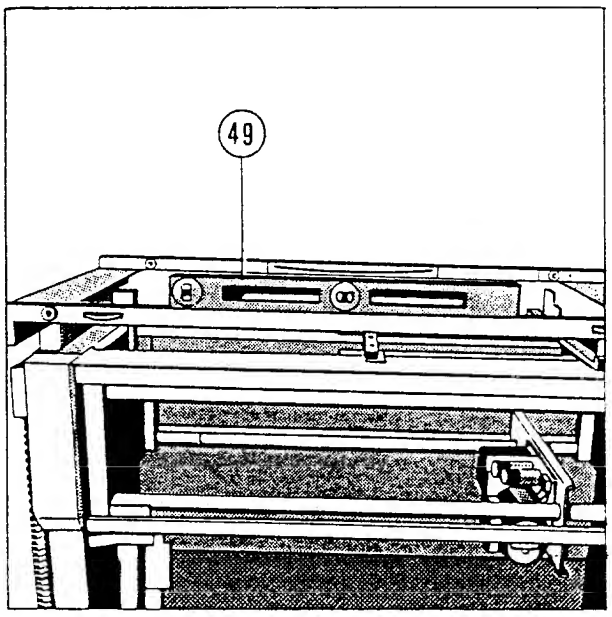


Fig. 4a

2.4 Bucky Installation

NOTE:
Buckys made by various manufacturers can be used. The unit has been prepared according to the order. The installation material required is included with the shipment.

Insert the Bucky into the carriage (Fig. 5-7). The cassette opening must face front, i.e. direction of the operator.

2.4.1 Philips:
Fasten with 4 screws and washers (Fig.5-7, Pos. 16) Fastening points located at right- and lefthand side. Place trim covers on edges wallside and operator side (Pos. 17+18) and fasten from above with 3 screws each (Pos. 19).

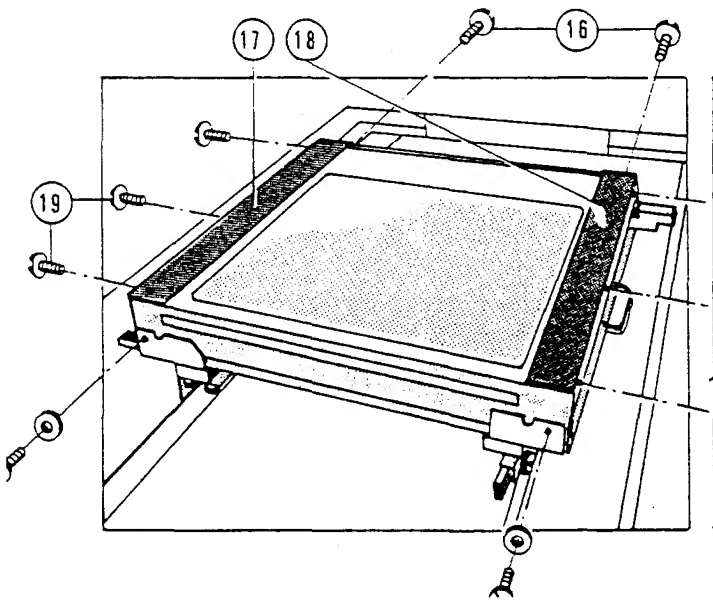


Fig. 5

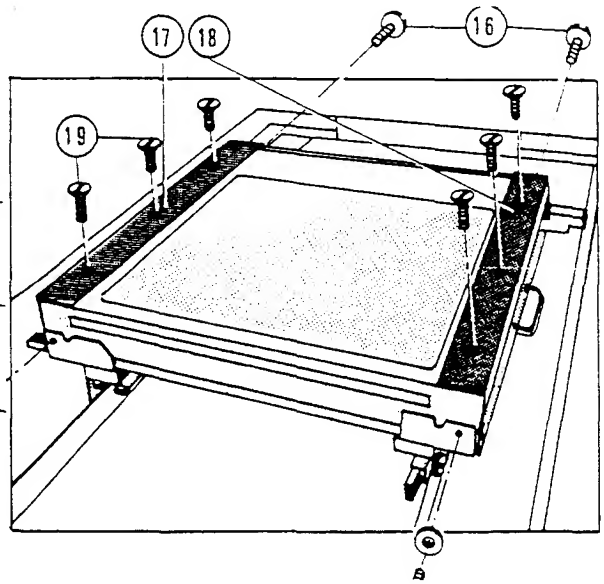


Fig. 6

2.4.2 Bucky Unit P
Fasten with 4 screws and washers (Fig.5-7, Pos. 16) Fastening points located at right- and lefthand side. Place trim covers on edges wallside and operator side (Pos. 17+18) and fasten from above with 3 screws each (Pos. 19).

2.4.3 Yamato
Fasten with 4 screws and washers (Fig.5-7, Pos. 16) Fastening points located at right- and lefthand side. Place trim covers on edges wallside and operator side (Pos. 17+18) and fasten from above with 3 screws each (Pos. 19).

2.4.4 Picker EP
Fasten with 4 screws and washers (Fig.5-7, Pos. 16) Fastening points located at right- and lefthand side. Place trim covers on edges wallside and operator side (Pos. 17+18) and fasten from above with 3 screws each (Pos. 19).

2.4.5 Shimadzu
Fasten with 4 screws and washers (Fig.5-7, Pos. 16) Fastening points located at right- and lefthand side. Place trim covers on edges wallside and operator side (Pos. 17+18) and fasten from above with 3 screws each (Pos. 19).

2.4.6 Villa
Fasten with 4 screws and washers (Fig.5-7, Pos. 16) Fastening points located at right- and lefthand side. Place trim covers on edges wallside and operator side (Pos. 17+18) and fasten from above with 3 screws each (Pos. 19).

2.4.7 Liebel-Flarsheim:
Fasten with 4 screws and washers (Fig.5-7, Pos. 16) Fastening points at right- and lefthand side (Fig.6, Pos. 16). Attach trim covers with broad sides up around edges wallside and operator side(Pos. 17+18). Fasten from wall and operator side with 3 screws and washers each (Pos. 19).

2.4.8 Siemens:
Fasten with 4 screws and washers (Fig.5-7, Pos. 16)
Fastening points at right- and lefthand side (Fig.7, Pos. 16).

2.5 Mains Connection

Take out provisional mains cable from component board in the table base. Connect the mains cable installed at the customer side to the component board, as per diagram page . Connect the Bucky cacording to the instructions of the manufacturer. Connect the separate 4 mm² protective ground wire to the central ground wire terminal (Fig.8, Pos. 21) on the component board.

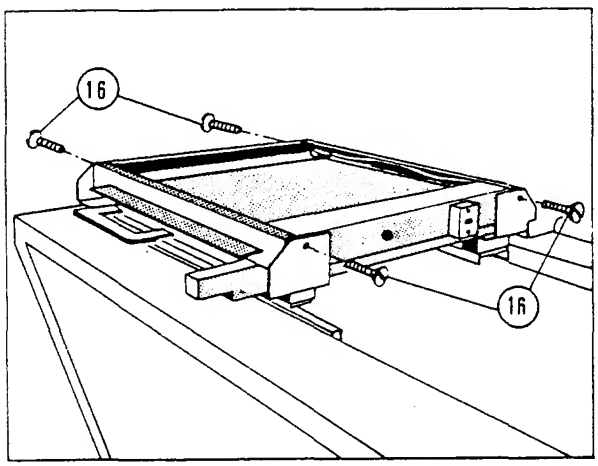


Fig. 7

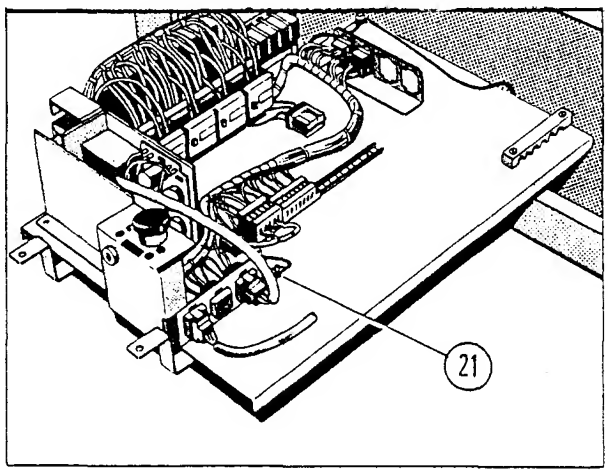


Fig. 8

2.6 Mounting of Table Top

Unscrew buffer stops (Fig.9, Pos. 22) from either the right or the left end of table top (Pos. 23).

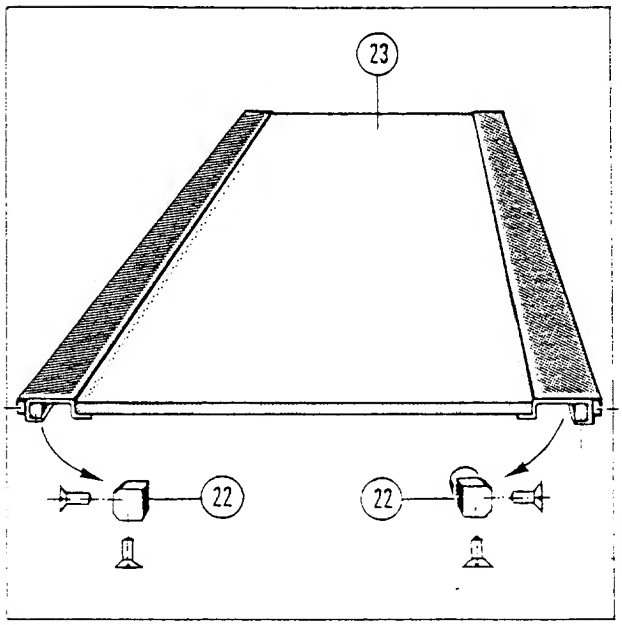


Fig. 9

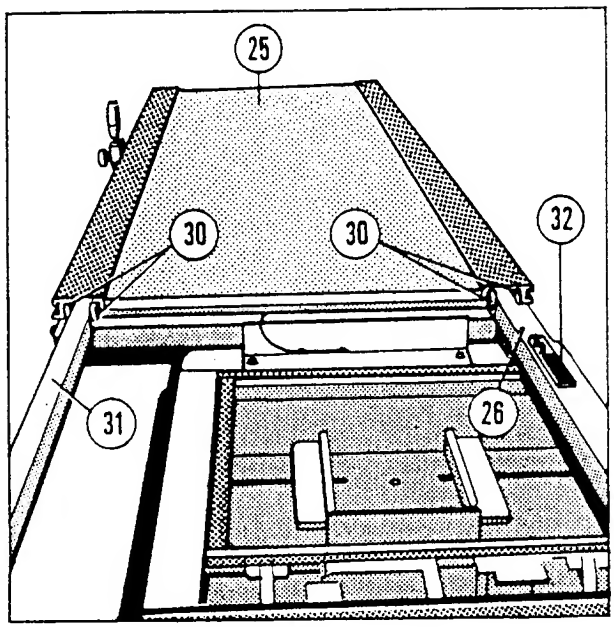


Fig. 10

Slide table top (Fig.10, Pos. 25) from the side onto frame (Pos.26). Bearings (Fig.10, Pos. 30) and plastic guide rollers (Pos. 31) must run in profile rails.

NOTE:
Do not push table top against magnet (Pos. 32).
Refasten buffer stops (Fig.9, Pos. 22) to table top.

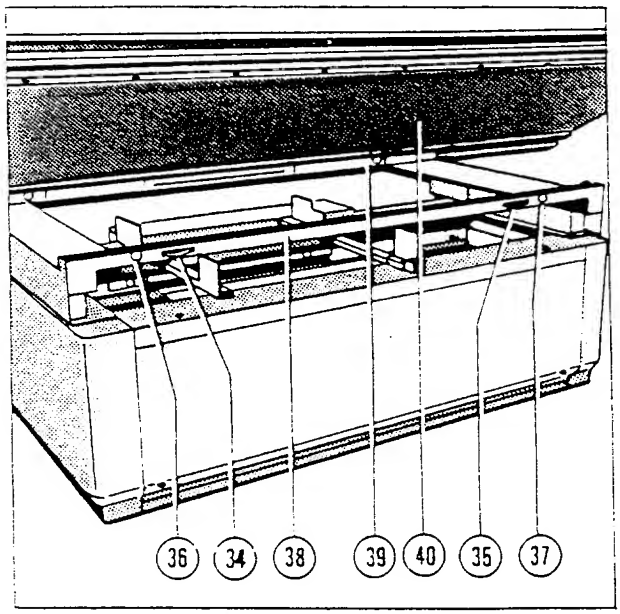


Fig. 11

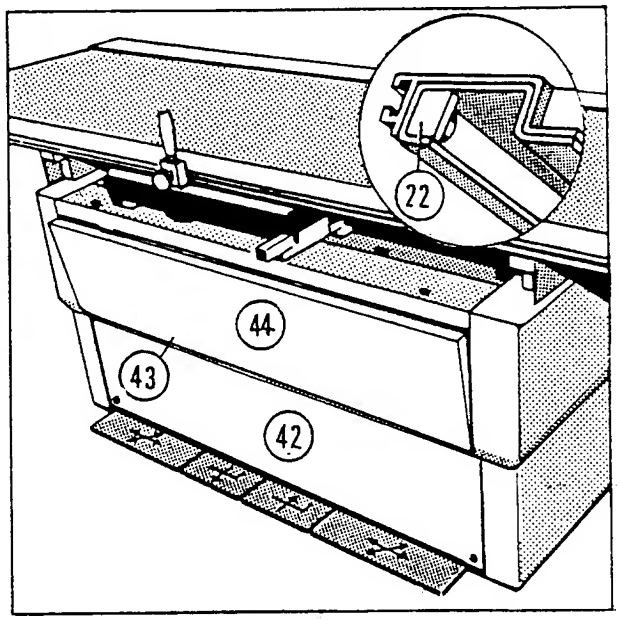


Fig. 12

2.6.1 Mounting of Table Top in Small Rooms
Unscrew buffer stops (Fig.9, Pos. 22) from both ends of table top. Remove plastic guide rollers (Fig.11, Pos. 34+35) and bearings (Pos. 36+37) from the table frame (Pos. 38). Place table top (Pos. 40) on table frame (Pos. 38). Lift table top on operator side to an angle of about 45° and hook profile rail on wallside around profile bar (Pos. 43). Then lower table top on operator side. Shift table top sideways to refasten plastic guide rollers (Pos. 34 +35) and bearings (Pos. 36+37). Refasten buffer stops to table top ends.

2.7 Fastening of Covers
Install lower cover (Fig.12, Pos. 42), connecting bar (Pos. 43) and upper cover (Pos. 44).

3. ADJUSTMENTS

3.1 Exposure Height Adjustment
To adjust exposure height, remove covers (Fig. 1/Pos. 2) and (Fig. 1/Pos. 5).

Drive to the preset exposure position, then drive to the desired exposure position.
Change setting value on trimmer -R4: cw = upwards, ccw = downwards.
LED -V14 is showing the reached exposure position.
The nominal value can be measured on -X19:9;
approx. 8,6 V
Drive serveral times to exposure height and control exposure position; readjust if necessary. The different exposure height when driving upwards resp. downwards can be balanced on trimmer -R5. Switch on the unit and perform functional tests as described in 4.2
The nominal value can be measured on -X16:10;
approx. 0,18 V.

3.2 Control Electronics
Adjust height potentiometer -R1 in a way that you have a reserve of 1/2 turn of the potentiometer in the top and in the bottom position.

Table adjustment max. at the top:
Drive the table to the top and stop just before reaching the safety limit switch -S4. Adjust with trimmer -R2 when LED V12 is just starting to give light. Drive to top end position several times and corret - if necessary - on trimmer -R2 . (cw = upwarts, ccw = downwards). The nominal value can be measured on -X16:7; approx. 11V.

Table adjustment max. at the bottom:
Drive the table to the bottom and stop just before reaching the safety switch limit switch -S4. Adjust with trimmer -R6 when LED V16 is just starting to give light. Drive to bottom end position several times and corret - if necessary - on trimmer -R6 . (cw = upwards, ccw = downwards). The nominal value can be measured on -X16:11; approx. 1,65V.

Exposure height:
Drive to the preset exposure position, then drive to the desired exposure position.
Change setting value on trimmer -R4: cw = upwards resp. ccw = down wards.
LED -V14 is showing the reached exposure position.
The nominal value can be measured on -X19:9; drive to approx. 8,6 V exposure height serveral times and control exposure position; readjust if necessary.
The different exposure height when driving upwards resp. downwards can be balanced on trimmer -R5.
The nominal value can be measured on -X19:10; approx. 0,18V

Slow motion range adjustment
Speed range for slow motion movement can be adjusted on trimmer -R7, both for up and down as well as for exposure height. cw = increase of range; ccw = reduction of range. -V17 is illuminated during slow motion movement. Measuring Point: -X16:12 ; approx. 0,55 V

Slow motion time adjustment
Mouvement starts with slow motion speed; after the preset period of time movement turns to quick motion. Time can be adjusted on Trimmer -R8. cw = longer period of time ccw = shorter period of time Slow motion period is shown on LED -V18. Measuring point: -X16:13; approx. 0,5 sec.

4. TECHNICAL MAINTENANCE

4.1 Mechanical and Electrical Tests

NOTE:
The maintenance schedule described below has to be accomplished at 12- month intervals.
Whenever in the course of these procedures, parts of the unit must be moved electromotively, or if functional tests require power, disconnect the power as soon as the part has reached the new position, or after the appropriate functional test sequence.
Defective parts must be replaced by genuine spare parts according to spare part lists enclosed.
Use only non-acid grease for maintenance. Do not grease or oil ball bearings with sealing washers.

Preparations:

- Raise the table all the way. Shut down power.
- Remove buffer stops (Fig.1, Pos. 9) from either end of table top. (In small rooms, proceed as in 2.6.1).
- Remove table top and put aside. Loosen Allan screws underneath cover (Fig.1/Pos. 10). Use 4 mm Allan wrench. Swivel the top cover (Pos. 11) forward and lift off by pulling upward.
- Loosen screws (Fig.1/Pos. 12). Swivel the cover (Pos. 13) at the bottom forward and pull out downward.
- Remove covers (Fig.2, Pos. 14) left and right.

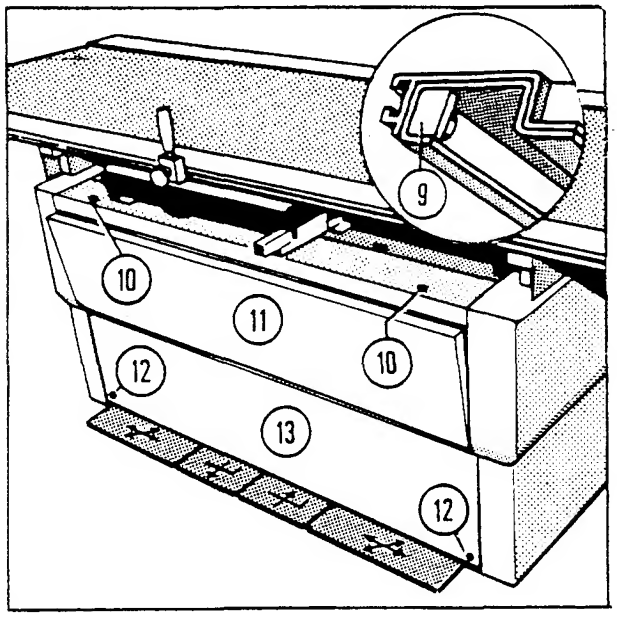


Fig. 1

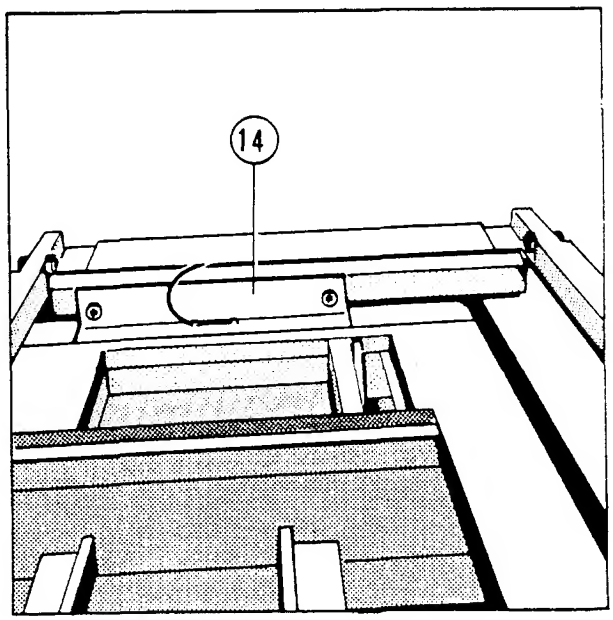


Fig. 2

Anchor Bolts:

- Check firmness of anchor bolts. Tighten, if loose, at a torque of 25 Nm (2.5 mkp).

Lift Motor:

- Check chain and sprocket wheels (Fig.3+4, Pos. 15) for trace of wear.
- Check chain tension. It should be taut. To adjust: Loosen counter nut (Fig.4, Pos. 18) and screws (Fig.3, Pos. 19)

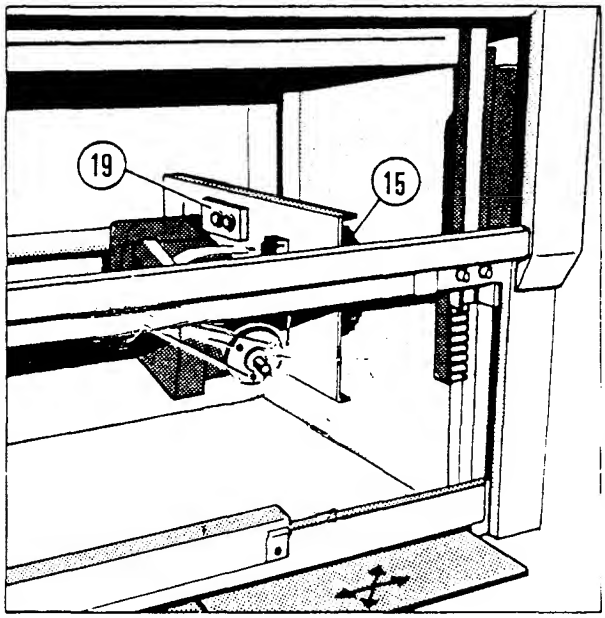


Fig. 3

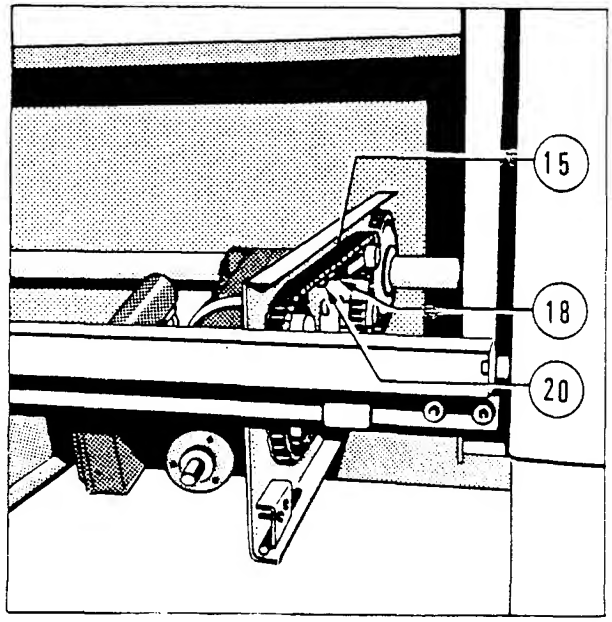


Fig. 4

- Adjust chain with clamping stud (Pos. 20). Counter clamping stud. Tighten screws (Pos. 19).
- Check all motor suspension bolts on firm seating.

Toothed Racks, Drive Shafts, Pinions:

- Switch on the unit. Run through entire travel range several times.
- Listen for hard knocking noises. Switch off the unit.
- Check the 8 racks (Fig.5, Pos. 25) and 4 pinions for wear. Use a mirror for visual checking.

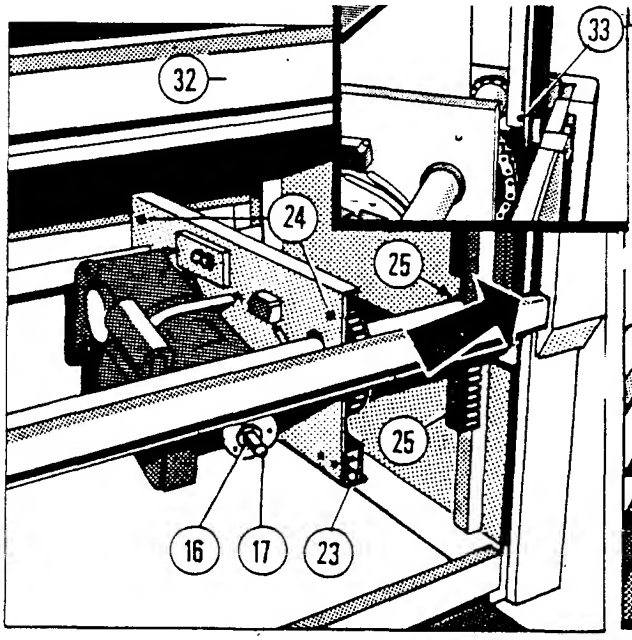


Fig. 5

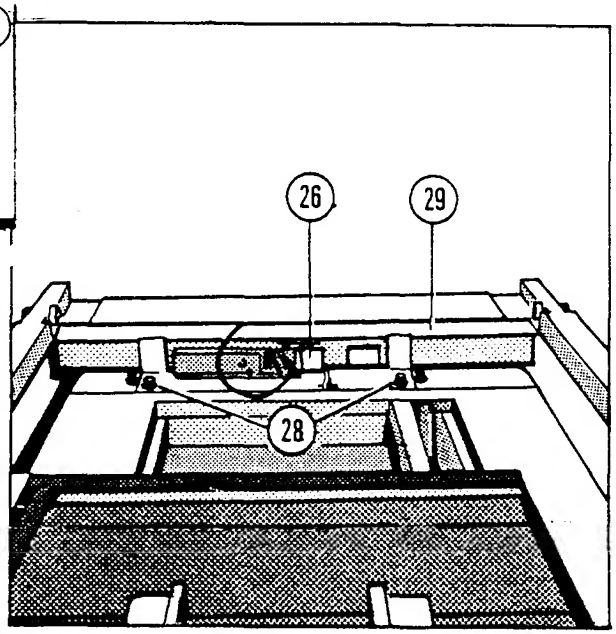


Fig. 6

- Any hard knocking running noise or visible damage? If not, regrease toothed racks and all bearings. Continue with maintenance for the Bucky carriage.

If there are knocking noises or mechanical damage, then

- Remove left plugs 23 and right plugs 24 (Fig.6, Pos. 26)
- Remove 4 Allan screws on either side (Fig.6, Pos. 28)
- Lift off table frame (Fig.6, Pos. 29).
- Remove plug 25 (bottom of Bucky carriage, wallside - Remove plug 21 on component board (Fig.7, Pos. 30)
- Remove cable strain relieve (Fig.7, Pos. 31)
- Lift off outer jacket (Fig.5, Pos. 32) by pulling upward uniformly. Do not use force!

CAUTION:

The Bucky carriage is not locked!

- Remove 4 screws (Fig.5, Pos. 33, Detail) and bushings.
- Crank up jacket support (Fig.7, Pos. 34) all the way and lift it off with drive assembly (Fig.8, Pos. 34+36). Arrange wooden bars (Fig.8). Place support/drive assembly on bars.

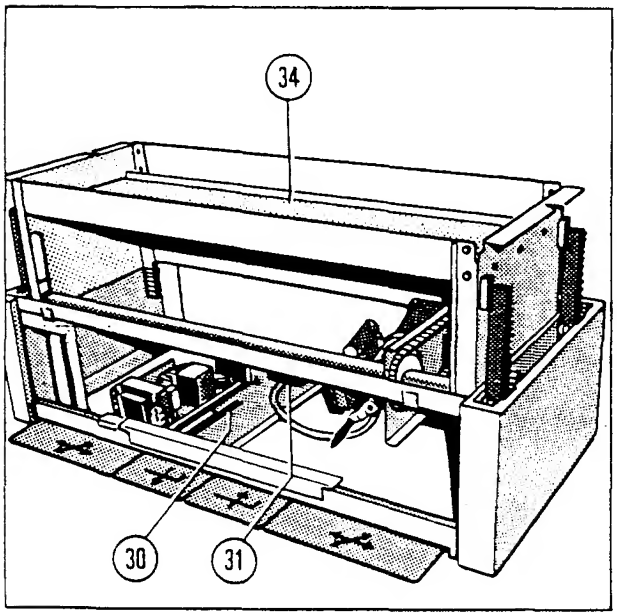


Fig. 7

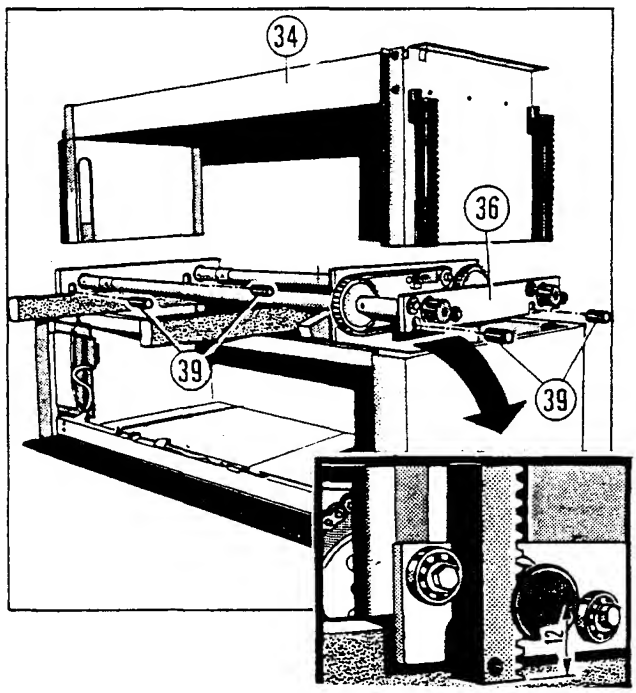


Fig. 8

- Toothed racks, pinions, and drive are now fully accessible. Replace defective part(s).

NOTE:

Before removing the chain or the sprocket wheels, insert the index pins (Fig.5, Pos. 23) into drilled holes (Fig.5,Pos. 24) on motor support and sprocket wheel flange. Remember to remove the index pins after replacement of defective parts is completed.

Reassembly:

- Place the jacket support (Fig.8, Pos. 34) with toothed racks on to the pinions.
- Crank in the jacket support until a measure ø12 mm (Fig. 8, Detail) is reached.
- Attach complete support/drive assembly to toothed racks of table base frame (Fig.7).
- Crank in assembly approximately 10 cm. Insert 4 bushings (Fig.8, Pos. 39) and fasten 4 screws (Fig.5, Pos. 33 Detail).

Bucky Carriage:

- Check on smooth running over entire travel range. Running noise? Determine and replace defective bearing.
- Check play and readjust the eccentric bearing (Fig.9, Pos. 40) if necessary. The adjustment is right if ball bearings can hardly be turned by hand.
- Check rubber buffer (Fig.9, Pos. 41) for damage and firm seating.
- Turn on power. Check brake (Fig.9, Pos. 42). Adjust if necessary: Loosen counter nut. Tighten set screw and counter nut.
- Turn off power. Clean and regrease rails.

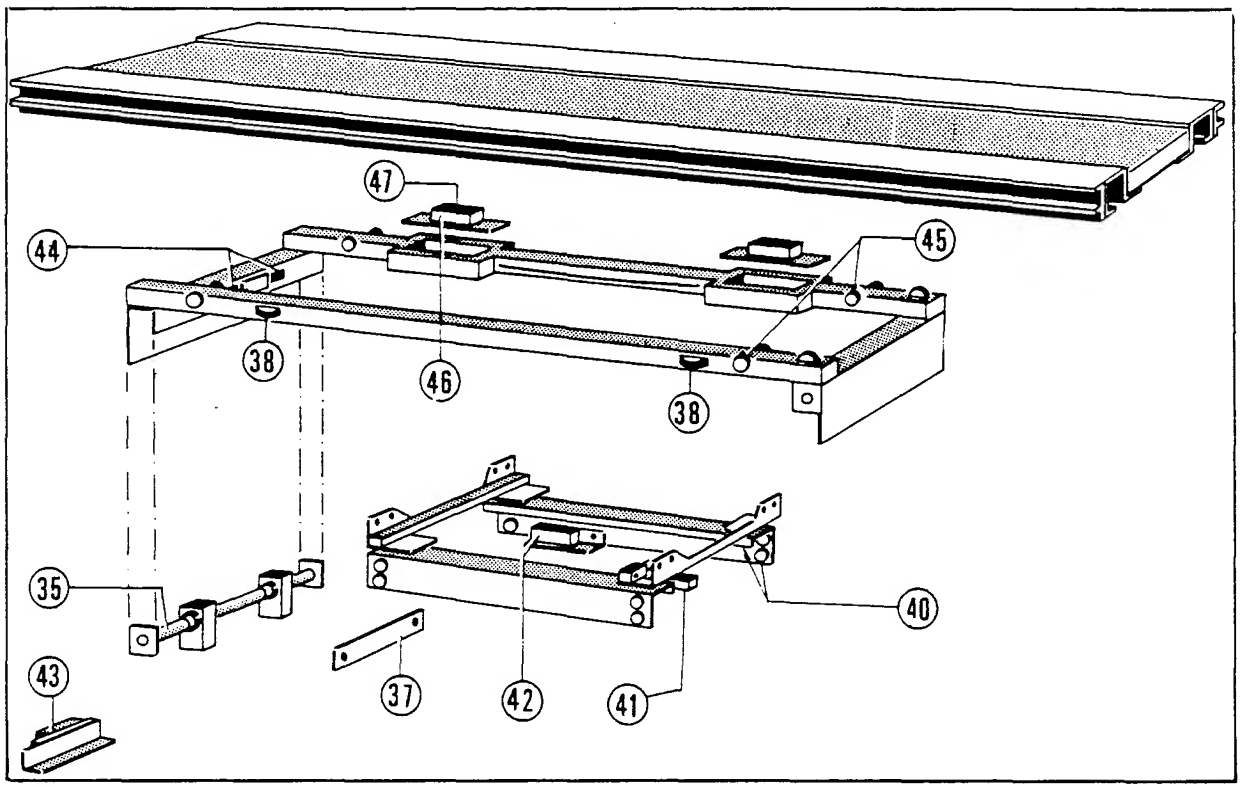


Fig. 9

Table Frame:

- Lightly regrease left and right guide shafts (Fig.9, Pos. 35).
- Turn on power. Check performance of left and right transverse brakes (Fig.9, Pos. 43). Adjust if necessary: Loosen counter nut. Tighten set screw and counter nut. Turn off power.
- Check rubber buffers (Fig.9, Pos. 44) for damage and firm seating.
- Reinstall covers (Fig.10, Pos. 37)

Table Top:

- Check both plastic rollers (Fig.9+10, Pos. 38) for trace of wear. Replace if necessary.
- Check all ball bearings supporting the table top movement, for damage and smooth running. Regrease.
- Reinstall table top. Move over entire travel range. Is there a running noise? Does it move smoothly? Determine defective bearing. Readjust eccentric bearing (Fig.9, Pos. 45), if necessary.
- Turn on power. Check performance of longitudinal brake (Fig.9, Pos. 46). Adjust if necessary as follows: Retract the table top. Loosen Allan set screw (Fig.9, Pos. 47). Readjust flat head screw (bottom side of frame below brake) and counter with set screw.
- Reinstall table top. Install buffer stops.

Component Board:

- Disconnect power (fuse!). Check with voltmeter that power is really off!
- Tighten set screws of all wire connections.
- Check all components on firm seating. Tighten screws if necessary.

NOTE:
For better access pull out (arrow) the component board (Fig.11, Pos. 30) together with the footswitches (Pos. 48) by loosening 2 screws (Pos. 43).

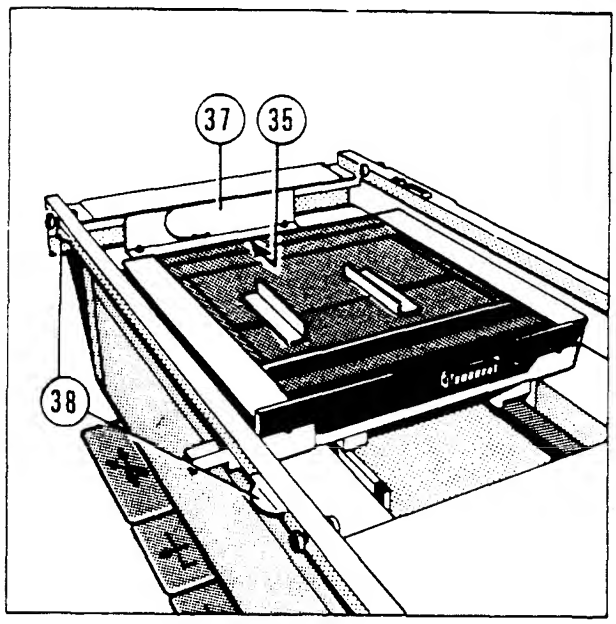


Fig. 10

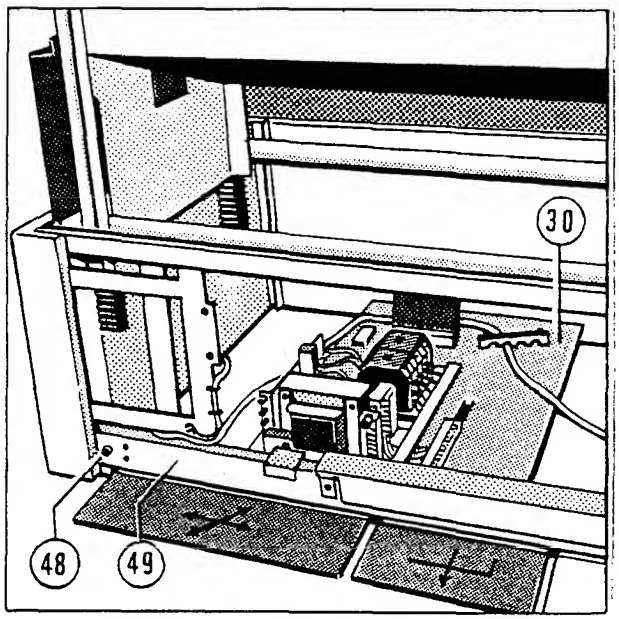


Fig. 11

General:

- Reinstall covers
- Clean the unit
- Connect the power supply

4.2 Functional Tests

Vertical Travel Mechanism:

- Turn on unit. Check performance of raising/lowering mechanism over entire travel range:
- Automatic stop in bottom/top end positions as well as in preset exposure position?
- Smooth starting and slowing down of Foot switch?
- Accurate performance of Foot switch ?
- Accurate performance of safety switch?
- Proper spring suspension of switches?
- No brushing of outer jacket against base panelling?
- No automatic lowering at load?

Table Top:

- Check performance of floating by travelling table top over entire range both longitudinally and transversely:
- Moving smoothly? Running without noise?
- Buffered stops for longitudinal/transverse movements?
- No tendency to self-positioning?
- Accurate braking in working position?
- Accurate releasing of brake?
- Accurate performance of foot switch resp. of safety switch?
- Proper spring suspension of switches?

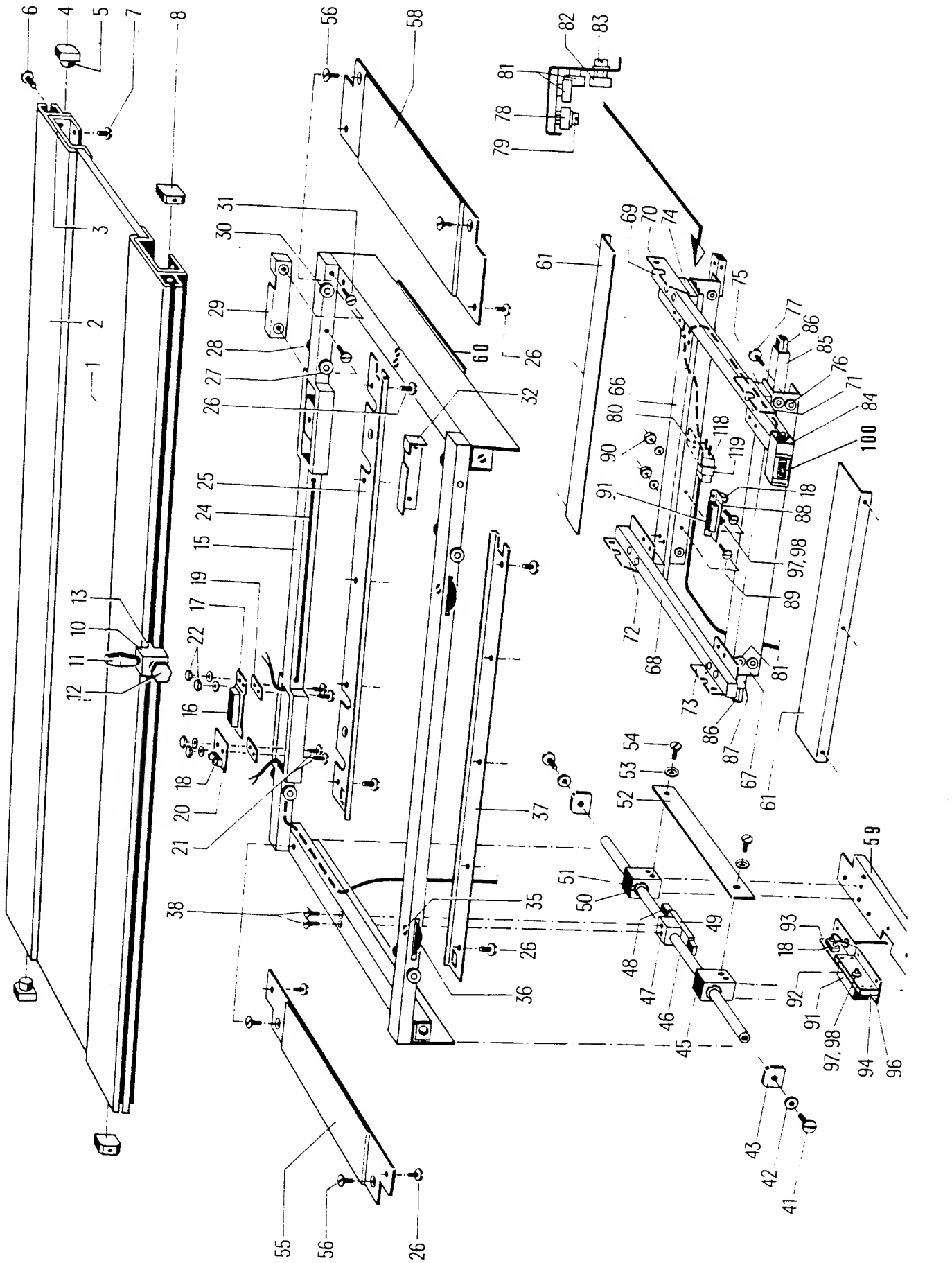
Bucky Carriage:

- Check performance of Bucky carriage over entire travel range.
- Moving smoothly?
- Running without noise?
- Accurate breaking in any working position?
- Accurate releasing of brake?
- Smooth cassette insertion?
- Smooth operation of cassette clamping device?

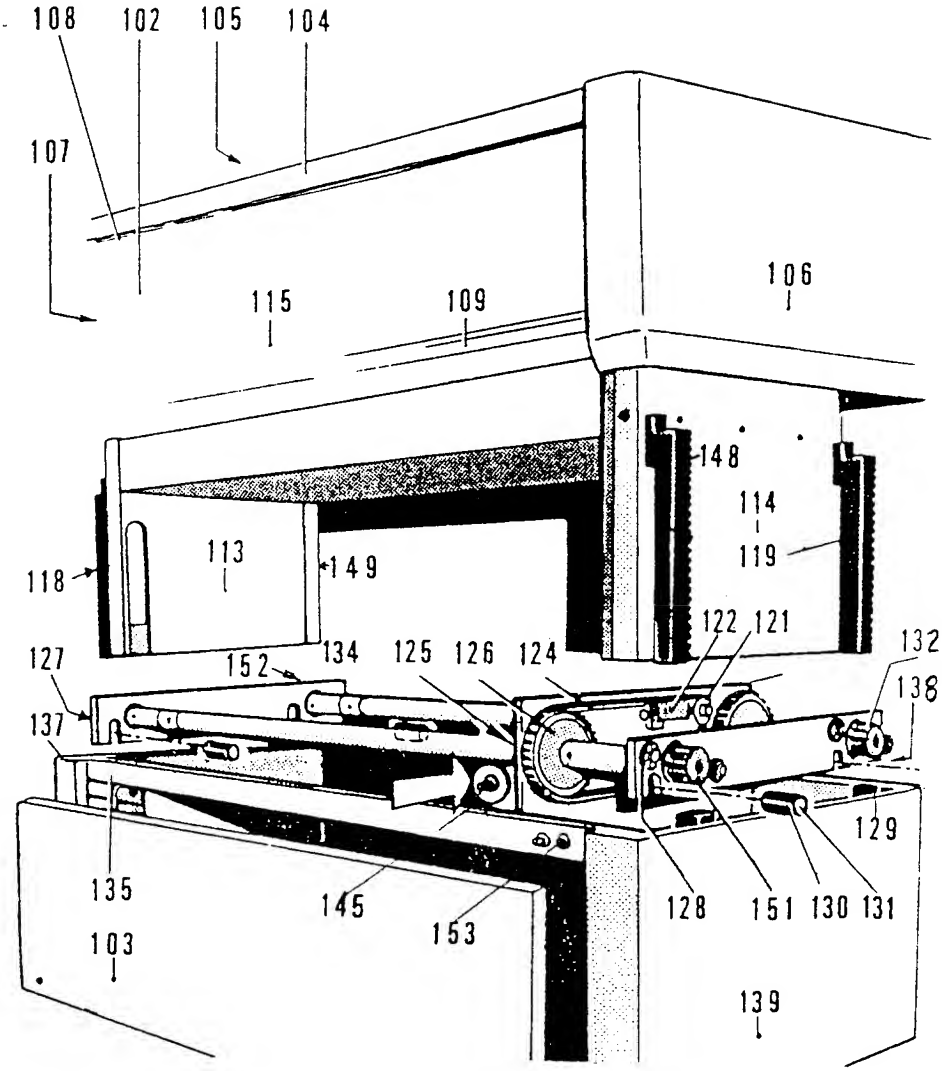
Exposure Release:

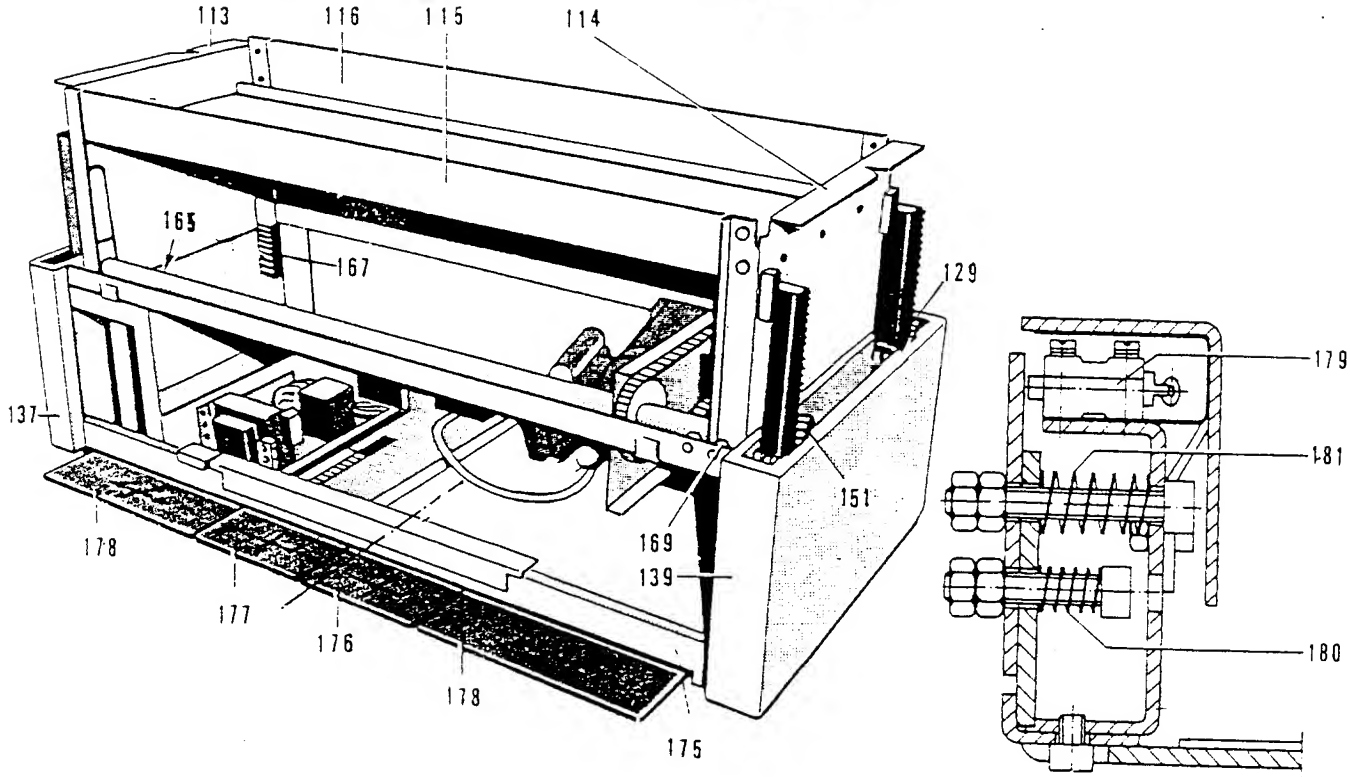
- Drive to exposure position. Be careful to observe radiation protection measures.
- Trigger exposure.
- Exposure taken ?
- Change height to a position outside exposure position. Try exposure.
- No exposure?

4.3.1 Spare Parts

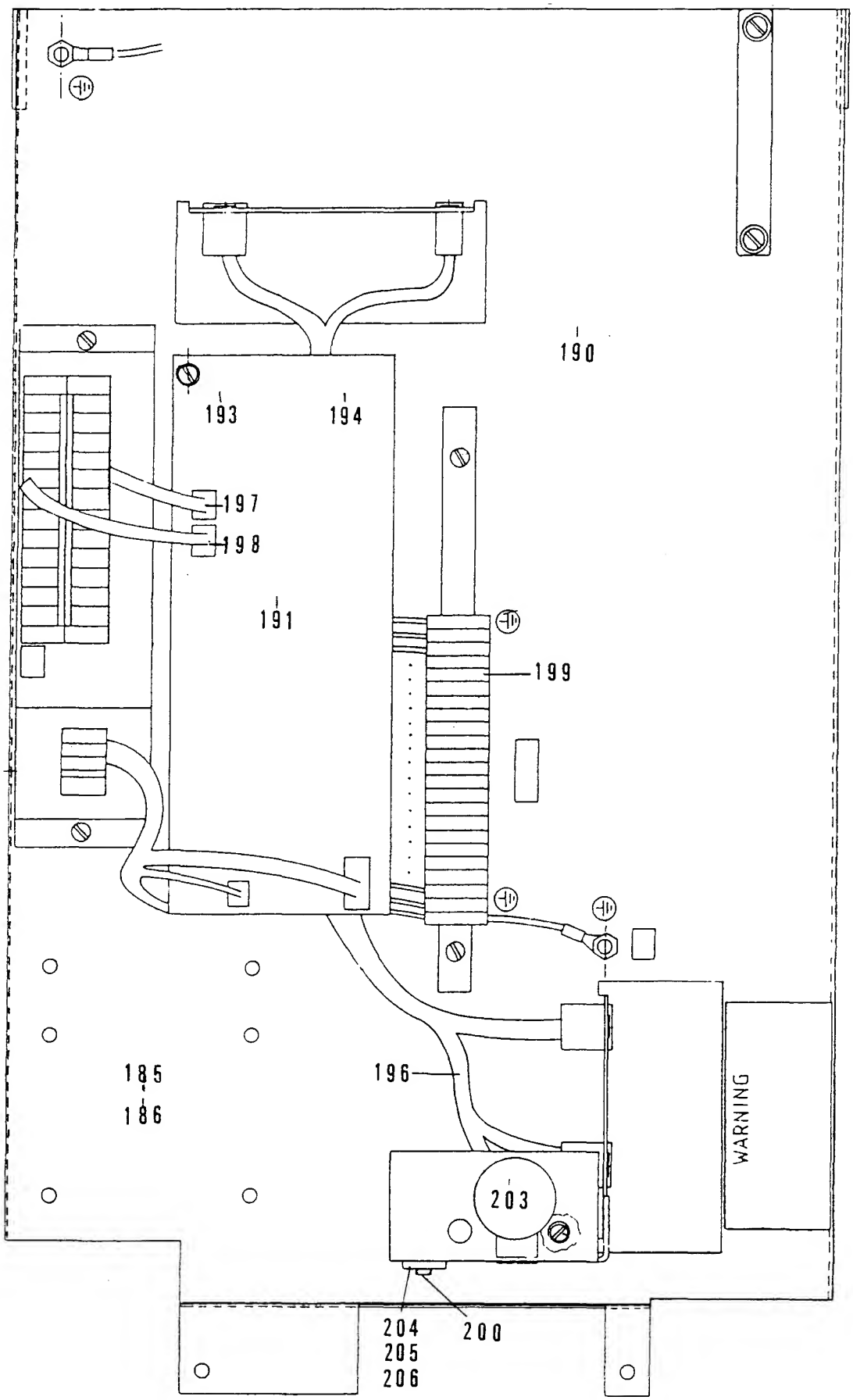


4.3.2 Spare Parts





4.3.3 Spare Parts



4.3.4 Spare Part List

NOTE:
Defective parts must only be replaced by genuine spare parts as listed below. For shipment of spare parts, always specify serial number of equipment and full ordering number(s). Parts or part assemblies may only be replaced by the manufacturer or parties expressly authorized. See also chapter on "Safety Procedures".

Pos.	Designation	Ordering No.
1	Table top	0622 0548
2	Profile rail	0622 0549
3	Frame	0622 0541
4	Stop	0622 0550a
5	Bumper	0005 0164g
6	Flat head screw M4x16 DIN 963	2020 0042
7	Flat head screw M4x10 DIN 963	2020 0038
8	Stop	0622 0550b
9		
10	Guide block	0903 0021
11	Handle	0008 0076
12	Hand knob	0930 0038
13	Clamp part	0903 0026
14		
15	Frame	0622 0501
16	Magnet	0006 0603
17	Spring	0622 0531
18	Clamp strip	0006 0042
19	Shim	0622 0532
20	Clamp base	0622 0533
21	Flat head screw M4x12 DIN 963	2020 0041
22	Nat M4 DIN 934	2100 0003
23		
24	Cable	0622 0506
25	Cover	0622 0520a
26	Flat head screw M4x8 DIN 963	2020 0003
27	Bearing with bushing	0622 0556
28	Bearing with eccentric	0622 0555
29		
30	Bearing with bushing	0622 0557
31		
32		
33		
34		
35	Shaft	0622 0515
36	Plastic roller	0622 0514
37	Cover	0622 0520b
38	Allan flat head screw M6x16 DIN 7991	2020 0102
39		
40		

Pos.	Designation	Ordering No.
41	Allan srew M5x16 DIN 964	2090 0084
42	Washer 5.3	0005 0017b
43	Cover	0622 0135
44		
45	Bearing block	0622 0085a
46	Guide shaft	0622 0528
47	Bearing Block	0622 0522b
48	Bumper	0622 0534a
49	Bumper housing	0622 0133
50	Bearing LBAR 20	0005 0191a
51	Snap ring 32x1.5 DIN 471	2200 0223
52	Plate	0622 0087
53	Washer 4.3	0005 0017
54	Flat head screw M4x10 DIN 963	2020 0038
55	Cover	0622 0523
56	Flat head screw M4x5 DIN 963	2020 0036
57		
58	Cover	0622 0526
59	Bridge	0627 0170a
60	Bridge	0627 0170b
61	Lid (LF)	0622 0121
62	Cover	0622 0199
63		
64		
65		
66	Angle piece	0622 0102
67	Angle	0622 0108
68	Carriage	0622 0118b
69	Carriage	0622 0118a
70	Angle	0622 0114b
71	Angle	0622 0113b
72	Angle	0622 0114a
73	Angle	0622 0113a
74	Pad	0622 0552b
75	Pad	0622 0553b
76	Bearing with eccentric	0622 0106a
77	Allan screw 8x20 DIN 912	2010 0020
78	Bearing with eccentric	0622 0106a
79	Allan screw M6x25 DIN 912	2010 0084
80	Angle	0627 0185
81	Bearing 6001-2Z	2400 0017
82	Bearing with eccentric	0622 0106a
83	Allan srew M8x20 DIN 912	2010 0020
84	Push button	0006 084b
85	Guide tube	0622 0118a
86	Buffer	0627 0187
87	Guide tube	0622 0118b
88	Angle	0622 0105
89	Flat head srew M5x12 DIN 85	2090 0014
90	Nut M5 DIN 934	2100 0002
91	Magnet	0006 0603
92	Spring	0105 0153
93	Clamp part	0622 0081a
94	Holder	0627 0080b
95	Mounting strip left	0627 0189a
96	Mounting strip right	0627 0189b

Pos.	Designation	Ordering No.
97	Nut M4 DIN 934	2100 0001
98	Set srew M4x16 DIN 551	2070 0008
99		
100	Rocker switch	0006 0548
101		
102	Cover panel, Front	0627 165
103	Cover panel	0627 033
104	Bridge, Front	0627 0153
105	Bridge, Rear	0627 0156a
106	Outer Side Panel	0627 0151c
107	Outer Side Panel	0627 0151b
108	Cover Strip	0627 0163
109	Bidge, Front	0627 0174
110	Cover, rear	0627 0160
111		
112		
113	Inner Side Panel	0627 0129b
114	Inner Side Panel	0627 0129a
115	Trough	0627 0134
116	Connecting Bar	0627 0136
117		
118	Toothed Rack	0627 0137a
119	Toothed Rack	0627 0137b
120		
121	Track-connecting tool	0627 1244
122	Screw M8x40 DIN 912	2010 0013
123		
124	Chain	2300 0027
125	Ball Bearing 16006	2400 0027
126	Spocket Disc	0627 1241
127	Gear Shaft	0627 0103
128	Bearing with eccentric Bushing	0627 0119
129	Gear Shaft	0627 0102
130	Bushing	0627 0140
131	Screw M 8 x 40 DIN 912	2010 0013
132	Guide washer	0627 0104b
133		
134	Cable Protection Cover	0627 1265
135	Bridge, Front	0627 0028
136		
137		
138		
139		
140		
141	Toothed Rack Drive II	0627 1200
142		
143		
144	Motor Sheet Support	0627 1210
145	Drive Motor (230 V) compl.	0627 1205
146		
147		
148	Toothed Rack	0627 1310b
149	Toothed Rack	0627 1310a
150		
151	Gear Shaft	0627 1120b
152	Gear Shaft	0627 1120a
153		

Pos.	Designation	Ordering No.
154	Terminal	0627 1334
155	Height Measuring Unit	0627 1130
156	Holder for Potentiometer	0627 1133
157	Potentiometer, cpl.	0627 1136
158	Cable for Potentiometer	0627 1139
159	Switch with Roll	0006 0616ba
160	Rackholder	0627 1320
161	Toothed Rack	0627 1330
162	Crank Handle	0627 1325
163	Dowel pin 8x50	2200 0324
164		
165	Toothed Rack	0627 0032a
166		
167	Toothed Rack	0627 0032b
168		
169	Eccentric Bushing Compl.	0627 0034
170		
171		
172		
173		
174		
175	Pedal, Compl.	0627 1140
176	Pedal, Short, "Up"	0627 1148
177	Pedal, Short, "Down"	0627 1146
178	Pedal "Brake"	0627 1144
179	Switch	0006 0079a
180		
181		
182		
183		
184		
185	Transformer (230 V)	0627 1470
186	Transformer (115 V)	0627 1465
187		
188	Frequency Converter	0006 0677
189		
190	Component board cpl.	0627 1450
191	Relay Board	0627 1460
192		
193	Motor Relay	0006 0667
194	Relay	0006 0286b
195		
196	Harness	0627 1451
197	Cable =AF-X13	0627 1452
198	Cable =AF-X14	0627 1453
199	Cable tie	0627 1454
200	Push button	0006 0084a
201		
202	Cable tie	0322 0076
203	Service Swith	0006 0260
204	Fuse holder	0006 0144
205	Cap for 5x20	0006 0152a
206	Cap for 6,3x32	0006 0152b
207		
208		
209		

4.4 Inspection/Maintenance Certification

Inspection/Maintenance has been carried out according to maintenance instructions of manufacturer. As required, defective parts have been replaced by genuine spare parts as listed below.

Replacement: (Give Pos.-No. only)

....
Date Service Company (Stamp) Signature

Replacement: (Give Pos.-No. only)

....
Date Service Company (Stamp) Signature

Replacement: (Give Pos.-No. only)

....
Date Service Company (Stamp) Signature

Replacement: (Give Pos.-No. only)

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Date Service Company (Stamp) Signature

Replacement: (Give Pos.-No. only)

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Date Service Company (Stamp) Signature

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